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Gendered Dimensions of Climate Change: Intersectional Perspectives on Vulnerability and Resilience

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Abstract

Climate change is increasingly recognised as both an environmental and social justice challenge, with its impacts distributed unevenly across populations. This study examines the gendered dimensions of climate change through the perspectives of Intersectionality Theory and Feminist Political Ecology, exploring how gender interacts with poverty, ethnicity, class, age, and geographical location to shape vulnerability and resilience. Using a qualitative literature review and thematic analysis of contemporary scholarly works, policy reports, and international climate assessments, the study synthesises evidence from Africa, Asia, and Latin America. The findings reveal that women, particularly in the Global South, face disproportionate climate-related risks due to unequal access to land, financial resources, education, technology, and decision-making processes. These vulnerabilities are further intensified by intersecting forms of social exclusion, including poverty, ethnic marginalisation, and geographical disadvantage. However, the study also demonstrates that women are not merely victims of climate change. Through local ecological knowledge, community networks, collective action, and innovative adaptation practices, they play critical roles in strengthening household and community resilience. The analysis further shows that climate adaptation initiatives may inadvertently reinforce existing inequalities when gendered power relations and intersecting vulnerabilities are overlooked. The study therefore advocates for climate policies that move beyond gender-neutral approaches by adopting intersectional and context-specific frameworks. It recommends expanding women's access to productive resources, promoting inclusive decision-making, supporting gender-responsive adaptation programmes, and integrating local knowledge into climate governance. Addressing climate change effectively requires confronting structural inequalities while recognising women as vital agents of resilience and environmental stewardship.

Keywords: Climate change, gender inequality, intersectionality, feminist political ecology, vulnerability

Introduction

Climate change has emerged as one of the most pressing global challenges of the twenty-first century, affecting ecosystems, economies, livelihoods, and human well-being across the world. However, its impacts are not experienced equally. The effects of climate change are deeply shaped by existing social, economic, and political inequalities, making vulnerability unevenly distributed among different groups of people. Increasingly, scholars and international organizations recognize that climate change is not gender neutral (Eriksen et al., 2021). Men and women experience environmental changes differently because of socially constructed roles, unequal access to resources, and differences in power and decision-making opportunities (Bryan et al., 2023). As a result, climate change often reinforces already existing inequalities, particularly in developing societies where poverty and social exclusion remain widespread.

According to the Intergovernmental Panel on Climate Change (IPCC), vulnerability to climate change is influenced not only by environmental exposure but also by factors such as poverty, discrimination, social exclusion, and unequal power relations ((Birkmann et al., 2022)). The IPCC further emphasizes that vulnerability is shaped by "social location" and the intersection of multiple forms of inequality, including gender, age, class, ethnicity, and disability (Birkmann et al., 2022). This means that the impacts of climate change cannot be understood in isolation from the broader social structures that determine access to opportunities, resources, and protection. Consequently, individuals and communities who are already marginalized are often the most exposed to climate risks and the least equipped to recover from environmental shocks.

Women, particularly those living in the Global South, frequently face disproportionate climate-related challenges due to pre-existing gender inequalities. In many developing regions, women are heavily dependent on climate-sensitive sectors such as agriculture, water collection, and natural resource management for their livelihoods and household survival (Alam & Gounder, 2025). Yet, despite their critical roles, they often have limited access to land ownership, credit facilities, education, technology, and participation in decision-making processes. These structural disadvantages reduce their capacity to adapt effectively to climate-related disruptions such as droughts, floods, food insecurity, and extreme weather events. In Sub-Saharan Africa, for example, rural women are among the most vulnerable groups because gender inequalities both increase their exposure to climate risks and constrain their adaptive responses (Innocent & Turyasingura, 2025; Delavallade et al., 2025; Shimels et al., 2025). Similarly, in Latin America, Indigenous and rural women experience heightened vulnerability due to the combined effects of gender discrimination, poverty, geographic isolation, and social marginalization (Anjum & Aziz, 2025).

The relationship between gender and climate change becomes even more complex when viewed through an intersectional perspective. Vulnerability is not determined by gender alone; rather, it is shaped by the interaction of multiple identities and systems of inequality (Rao et al., 2021). Factors such as ethnicity, class, age, disability, and geographic location intersect with gender to create different experiences of risk and resilience. For instance, a poor rural woman from an ethnic minority community may face far greater climate vulnerability than women from more privileged social backgrounds. This intersectional understanding is important because it challenges generalized assumptions about women's experiences and highlights the diversity of realities across different social contexts (Chisty et al., 2021).

At the same time, women should not be viewed solely as victims of climate change. Across many communities, women play essential roles in building resilience and promoting sustainable adaptation practices. Through indigenous knowledge systems, community cooperation, food preservation techniques, water management, agroecological farming, and informal support networks, women contribute significantly to household and community survival during environmental crises (Perelli et al., 2025; Onoh et al., 2023). Their experiences and local knowledge often provide valuable insights into sustainable environmental management and climate adaptation strategies. Nevertheless, these contributions are frequently overlooked in mainstream climate governance and policy frameworks.

Despite the growing body of scholarship on gender and climate change, existing studies often examine vulnerability and resilience separately, while relatively few integrate Intersectionality Theory and Feminist Political Ecology within a single analytical framework. This limitation restricts a comprehensive understanding of how overlapping inequalities simultaneously shape climate risks and adaptive capacities. By addressing this gap, the present study contributes to emerging debates on climate justice, inclusive governance, and sustainable development.

1.1 Statement of the Problem

Climate change has emerged as one of the most pressing challenges of the twenty-first century, affecting ecosystems, livelihoods, and human well-being across the globe. However, its impacts are not experienced equally. Individuals and communities differ significantly in their levels of exposure, vulnerability, and capacity to adapt, largely because of existing social, economic, and political inequalities. While contemporary climate scholarship increasingly acknowledges the importance of gender in shaping climate experiences of the literature continues to treat women as a single and homogeneous category (Rana & Saini, 2025). This tendency overlooks the diverse realities of women whose experiences are shaped not only by gender but also by factors such as poverty, ethnicity, age, class, social status, and geographical location.

As a result, important differences in climate vulnerability and adaptive capacity often remain insufficiently explored. Women living in rural communities, indigenous populations, low-income households, and environmentally fragile regions frequently encounter multiple and overlapping forms of disadvantage that intensify their exposure to climate-related risks (Nyasimi et al., 2026). Understanding these intersecting dimensions of vulnerability is essential for developing climate policies and adaptation strategies that are both effective and equitable.

Another important concern within climate change discourse is the tendency to focus primarily on women's vulnerability while giving less attention to their agency and contributions to climate resilience. Much of the existing literature and policy discussion portrays women, particularly those in the Global South, as victims of environmental change. While acknowledging the structural barriers that many women face, such perspectives often overlook the knowledge, skills, and adaptive practices that women employ to support their households and communities during periods of environmental stress (Ngcamu, 2023). Women play critical roles in food production, natural resource management, water conservation, and community-based adaptation initiatives, yet these contributions are not always adequately reflected in climate governance frameworks and policy interventions.

Furthermore, while numerous studies have documented the disproportionate effects of climate change on women, many remain geographically fragmented or focus on specific sectors such as agriculture, health, or disaster management (Adhikari & Ghimire, 2025). Consequently, there remains limited integrative scholarship that systematically examines how multiple social identities intersect across diverse contexts to shape both vulnerability and resilience. This theoretical and analytical limitation necessitates further inquiry.

This imbalance creates a significant gap between climate policy and lived realities. Adaptation programmes that fail to recognise the complex ways in which gender intersects with other social inequalities, or that overlook women's active contributions to resilience-building, may produce limited outcomes and, in some cases, reinforce existing forms of exclusion (Prakash et al., 2022). Consequently, there remains a need for a more comprehensive analytical approach capable of examining both the structural factors that generate vulnerability and the social processes through which resilience is developed.

Although previous studies have examined gender and climate change, relatively few have integrated the insights of Intersectionality Theory and Feminist Political Ecology to provide a holistic understanding of how power relations, social inequalities, and environmental conditions interact to shape climate experiences (Balan & Sreechandana, 2025). This gap limits the ability of scholars and policymakers to fully understand the diverse realities of climate-affected populations and to design interventions that respond effectively to their needs.

It is against this background that this study investigates the gendered dimensions of climate change through an intersectional lens. Drawing on Intersectionality Theory and Feminist Political Ecology, the study examines how multiple forms of inequality influence climate vulnerability while also highlighting the important roles women play in adaptation and resilience. By doing so, the study seeks to contribute to a more nuanced understanding of climate justice and to provide insights that can support the development of inclusive, gender-responsive, and sustainable climate policies.

2.0 Literature Review

2.1 Gender and Climate Change

The relationship between gender and climate change has become a major area of scholarly inquiry, driven by growing recognition that climate impacts are mediated by existing social, economic, and political inequalities. Early research largely framed women as one of the most vulnerable groups affected by environmental change, emphasizing their dependence on climate-sensitive livelihoods and their limited access to land, finance, technology, and political participation (Bryan et al., 2023). While this scholarship successfully highlighted gendered disparities, critics argue that it often relied on generalized assumptions that portrayed women as inherently vulnerable, thereby overlooking important variations in women's experiences across different social and cultural contexts.

More recent studies have challenged this victim-centred narrative by emphasizing women's agency and adaptive capacities. Scholars increasingly demonstrate that women play critical roles in

environmental stewardship, agricultural innovation, disaster preparedness, and community resilience (Chougule, 2025). However, tensions remain within the literature regarding the balance between recognizing vulnerability and acknowledging agency. While some studies focus primarily on structural constraints, others risk overstating resilience without adequately accounting for the institutional and socio-economic barriers that continue to limit women's adaptive capacities. This tension suggests the need for more nuanced frameworks capable of capturing both dimensions simultaneously.

2.2 Intersectionality and Climate Vulnerability

Intersectionality has emerged as a significant analytical framework for addressing the limitations of gender-centred approaches. Originating from the work of Kimberlé Crenshaw (1989), intersectionality emphasizes that social identities and systems of power operate simultaneously rather than independently. Within climate change research, this perspective has challenged the tendency to treat women as a homogeneous category by demonstrating how vulnerability is shaped through the interaction of gender, class, ethnicity, age, disability, education, and geographic location.

The application of intersectionality has enriched climate scholarship by revealing the uneven distribution of climate risks both between and within social groups. Nevertheless, some scholars contend that intersectional analyses often remain conceptually sophisticated but empirically underdeveloped, making it difficult to translate theoretical insights into practical climate policies (Mensah et al., 2025s). Others argue that the growing popularity of intersectionality has sometimes led to descriptive accounts of multiple identities without adequately examining the structural power relations that produce vulnerability. These critiques highlight the need for research that applies intersectionality not merely as a categorization tool but as a framework for understanding how overlapping inequalities shape climate experiences and adaptive opportunities.

2.3 Regional Perspectives from the Global South

Research across Africa, Asia, and Latin America provides compelling evidence of the context-specific nature of gendered climate vulnerability. Studies consistently show that women in many regions face disproportionate risks due to poverty, unequal resource ownership, restricted access to education and technology, and exclusion from governance processes (Anjum & Aziz, 2025). Yet regional scholarship also demonstrates that climate vulnerability cannot be reduced to gender alone. Local cultural norms, political institutions, historical inequalities, and environmental conditions significantly influence how climate impacts are experienced and addressed.

Importantly, empirical studies from the Global South reveal women as active participants in adaptation processes through indigenous knowledge systems, sustainable agricultural practices, natural resource management, and community-based resilience initiatives (Aluko, 2018). However, the literature remains uneven, with many studies concentrating on rural communities while giving comparatively less attention to urban women, migrants, and other socially marginalized groups. This imbalance limits a comprehensive understanding of the diverse ways climate change affects different populations across the Global South.

2.4 Intersectionality and Feminist Political Ecology

Feminist Political Ecology (FPE) complements intersectional approaches by examining how environmental change is shaped by gendered power relations, resource access, and knowledge systems. Unlike conventional environmental frameworks that often treat communities as uniform entities, FPE highlights how social hierarchies influence interactions with natural resources and environmental governance (Anyanwu et al. 2025). The framework has been particularly valuable in demonstrating how women's ecological knowledge contributes to adaptation and sustainability while simultaneously revealing the institutional barriers that constrain their participation in decision-making processes.

Despite their shared concern with power and inequality, intersectionality and FPE have often developed along separate intellectual trajectories. Intersectionality primarily focuses on multiple and overlapping forms of social identity and marginalization, whereas FPE emphasizes environmental governance, resource control, and ecological knowledge (Buthelezi et al., 2026). Relatively few studies systematically integrate these frameworks to examine both the structural determinants of vulnerability and the mechanisms through which resilience is constructed. Consequently, opportunities remain for developing more comprehensive analyses that bridge these perspectives and provide a deeper understanding of climate justice and adaptation.

2.5 Gap in Literature

Although the literature has made significant contributions to understanding the gendered dimensions of climate change, three major gaps remain. First, existing research continues to place greater emphasis on vulnerability than on resilience, often overlooking the ways women actively shape adaptation strategies and environmental governance. Second, despite growing recognition of intersectionality, many studies still rely on broad categorizations of women that insufficiently account for differences arising from class, ethnicity, age, disability, and geographic location. Third, limited scholarship has effectively integrated Intersectionality Theory and Feminist Political Ecology into a unified analytical framework capable of explaining both the production of vulnerability and the emergence of resilience.

This study addresses these gaps by combining insights from Intersectionality Theory and Feminist Political Ecology to examine how overlapping systems of inequality shape climate experiences while also highlighting women's roles as agents of resilience and adaptation. Through this integrated approach, the study contributes to a more nuanced and comprehensive understanding of the gendered dimensions of climate change.

2.6 Theoretical Framework: Intersectionality Theory and Feminist Political Ecology Theory

2.6.1 Intersectionality Theory

This study is anchored partly on Intersectionality Theory, originally developed by Kimberlé Crenshaw in 1989. The theory explains how different forms of social inequality and identity such as gender, class, ethnicity, age, disability, and geographic location intersect to produce unique

experiences of oppression and privilege (Harris & Leonardo, 2018). Rather than viewing women as a homogeneous group, intersectionality emphasizes that vulnerabilities are shaped by overlapping systems of discrimination and power relations (Bauer et al., 2021).

In the context of climate change, intersectionality helps explain why climate impacts are experienced differently among women and men across societies (Okesanya et al., 2024). For example, poor rural women in the Global South often face multiple disadvantages due to poverty, limited education, restricted land ownership, and exclusion from decision-making processes. These intersecting inequalities increase their exposure and sensitivity to climate hazards while simultaneously reducing their adaptive capacity.

The theory is particularly relevant to this study because it provides a framework for analyzing how climate vulnerability is socially constructed rather than naturally determined. It enables the study to move beyond simplistic gender analysis by recognizing that women's experiences of climate change vary according to social class, ethnicity, livelihood, and cultural context. Through this lens, resilience is understood not merely as an individual capacity but as a condition shaped by access to power, resources, and social inclusion (Kaim et al., 2024).

Intersectionality therefore supports the argument that effective climate policies must address overlapping inequalities and promote inclusive adaptation strategies that reflect diverse lived experiences (Rigon, 2025).

2.6.2 Feminist Political Ecology (FPE) Theory

The second theoretical foundation of this study is Feminist Political Ecology (FPE). Feminist Political Ecology emerged in the 1990s through the works of scholars such as Dianne Rocheleau, Barbara Thomas-Slayter, and Esther Wangari. The theory examines the relationship between gender, power, and environmental change, emphasizing how access to and control over natural resources are shaped by social and political structures (Rocheleau, 2015).

FPE argues that environmental problems, including climate change, cannot be separated from issues of gender inequality and power relations. The theory highlights how women and men interact differently with the environment because of socially assigned roles and responsibilities. Women, especially in rural communities, are often primary managers of water, forests, food production, and household energy, giving them important ecological knowledge and adaptive skills (Paramana et al, 2023; Amorim-Maia et al., 2022).

Within climate change discourse, Feminist Political Ecology challenges narratives that portray women only as passive victims of environmental crises (Resurrección, 2017). Instead, it recognizes women as active agents of resilience whose local knowledge, community networks, and coping strategies contribute significantly to adaptation and sustainability (Vigil, 2024). For instance, women's participation in agroecology, food preservation, water management, and informal support systems demonstrates their central role in strengthening community resilience against climate shocks.

The relevance of FPE to this study lies in its ability to explain how gendered power relations influence both vulnerability and resilience. It also provides a critical lens for examining how climate governance, resource distribution, and adaptation policies may reinforce or challenge existing inequalities. The theory therefore supports the study's call for gender-responsive and socially inclusive climate policies.

2.6.3 Application of the Theories to the Study

The integration of Intersectionality Theory and Feminist Political Ecology provides a comprehensive framework for understanding the gendered dimensions of climate change. While Intersectionality Theory explains how overlapping social identities shape vulnerability and exclusion, Feminist Political Ecology emphasizes the gendered power relations embedded in environmental management and adaptation processes

Although Intersectionality Theory and Feminist Political Ecology originate from different intellectual traditions, they complement one another in important ways. Intersectionality explains how multiple social identities shape differentiated experiences of climate vulnerability, while Feminist Political Ecology reveals how environmental governance and resource distribution are embedded within gendered power structures.

Together, these perspectives provide a multidimensional framework capable of explaining both structural vulnerability and adaptive agency. Theory and Feminist Political Ecology provide a comprehensive framework for understanding the gendered dimensions of climate change. The theories enable this study to examine how climate vulnerability varies across gender, class, ethnicity, and geographic location, showing that climate impacts are shaped by overlapping social inequalities and power relations. They also help to explain the structural barriers that limit women's adaptive capacity, including restricted access to land, finance, education, technology, and decision-making processes. Furthermore, the framework highlights the importance of women's indigenous knowledge, local experiences, and community-based resilience strategies in responding to environmental challenges. At the same time, it offers a critical perspective on unequal access to climate resources, governance structures, and policy processes that often marginalize women and other vulnerable groups. Through this approach, the study advocates for inclusive and gender-transformative climate policies that address systemic inequalities while promoting social justice and sustainable adaptation. Overall, the combined theoretical framework provides a deeper understanding of climate justice by connecting environmental challenges with broader issues of social inequality, power relations, and sustainable development.

3.0 Research Methodology

This study adopts a qualitative research design based on an integrative literature review to examine the gendered dimensions of climate change through the combined lenses of Intersectionality Theory and Feminist Political Ecology. Secondary data were collected from peer-reviewed journal articles, academic books, policy reports, and publications from international organizations, including the Intergovernmental Panel on Climate Change (IPCC), United Nations agencies, and development institutions. Sources published primarily between 2015 and 2025 were purposively selected to ensure relevance, contemporary coverage, and alignment with the study's objectives.

The selection process focused on literature addressing gender, climate vulnerability, resilience, adaptation, intersectionality, and environmental governance, particularly within the Global South. Data were analysed using thematic analysis, which enabled the identification, categorization, and interpretation of recurring patterns and themes across the reviewed literature (Ahmed et al., 2025). The analytical process involved coding key concepts related to gendered vulnerability, adaptive capacity, social exclusion, ecological knowledge, and resilience strategies, followed by their interpretation through the theoretical frameworks guiding the study. This approach was considered appropriate because it facilitates a comprehensive synthesis of existing knowledge while allowing for critical examination of how intersecting social inequalities shape climate experiences and adaptation outcomes across different contexts.

4.0 Empirical Analysis: Gendered Vulnerabilities to Climate Change

The findings reviewed in this study demonstrate that climate vulnerability is not solely a consequence of environmental exposure but is deeply embedded within existing social, economic, and political inequalities. Across the literature, gender consistently emerges as a critical factor shaping individuals' exposure, sensitivity, and adaptive capacity in the face of climate change. However, the evidence also suggests that gender operates in conjunction with other social markers, including poverty, ethnicity, age, and geographical location, creating complex and differentiated experiences of climate vulnerability. Collectively, the studies indicate that vulnerability is socially produced and reinforced through unequal access to resources, decision-making power, and institutional support rather than resulting from climate hazards alone.

One of the most significant themes emerging from the literature is the relationship between gender and access to resources. Women's lower income levels and limited ownership of productive assets reduce their capacity to absorb climate-related shocks and invest in adaptive strategies (Li et al., 2026). This finding aligns with the World Bank's observation that financial constraints, restricted control over assets, and gender norms that position women as primary caregivers significantly undermine adaptive capacity in many rural contexts. Similarly, limited access to land ownership and natural resources restricts women's ability to diversify livelihoods and recover from environmental disruptions. For example, only around 30% of rural women in Latin America own land, illustrating how structural inequalities continue to shape vulnerability long before climate hazards occur. From a Feminist Political Ecology perspective, these inequalities reflect broader power relations that determine access to environmental resources and decision-making processes, thereby reinforcing gendered patterns of vulnerability. Importantly, similar patterns emerge across different geographical contexts, suggesting that unequal resource distribution remains one of the most consistent determinants of gendered climate vulnerability.

The literature further highlights the importance of intersectionality in understanding climate impacts. While women are frequently identified as a vulnerable group, the evidence demonstrates that vulnerability is not experienced uniformly. Rather, gender intersects with class, ethnicity, age, and social status to produce varying levels of exposure and adaptive capacity. Anjum and Aziz (2025) demonstrate that women belonging to ethnic minorities often face both gender-based discrimination and social marginalisation, significantly limiting their access to resources and support systems. Similarly, childcare responsibilities can simultaneously increase women's vulnerability by expanding domestic burdens while also motivating adaptive behaviour aimed at

protecting family wellbeing. These findings support Intersectionality Theory by illustrating that climate vulnerability cannot be adequately explained through gender alone. Instead, multiple and overlapping forms of inequality shape how climate risks are experienced and managed. The evidence therefore suggests that policies targeting women as a single homogeneous category risk overlooking significant differences in adaptive capacity and lived experience.

Similarly, the findings challenge simplistic assumptions that adaptation initiatives automatically promote social equity. The IPCC warns that adaptation actions do not inherently produce positive outcomes for gender equality and may, in some cases, reinforce existing hierarchies if social inequalities are overlooked (Abdulkadir, et al, 2025, Schipper et al., 2022). This observation shifts attention from adaptation as a purely technical process to adaptation as a political and social process. Without deliberate efforts to address unequal access to resources, participation, and decision-making, adaptation programmes risk reproducing the very inequalities they seek to reduce. Consequently, gender-sensitive adaptation must move beyond including women as beneficiaries and instead ensure meaningful participation in planning, implementation, and governance processes.

4.1 Empirical Evidence from Africa, Asia, and Latin America

The evidence also demonstrates how physical climate hazards translate into unequal social outcomes. Heatwaves, floods, and droughts affect populations differently depending on their social position and access to resources (Hashim & Ogundare, 2025). Research from South Africa indicates that women and men experience heat stress differently, with pregnant women and infants facing particularly severe health risks during periods of extreme heat (Holden et al., 2026). Such findings reveal that climate vulnerability encompasses not only economic impacts but also significant health dimensions. Moreover, climate-related disruptions frequently affect sectors where women are disproportionately represented, particularly agriculture. According to the IPCC (2022), women contribute approximately 43% of the global agricultural labour force but account for only 15% of landholders worldwide. This disparity highlights a critical contradiction: women play a substantial role in food production yet possess limited control over the resources necessary for adaptation and recovery. Consequently, climate change exacerbates existing inequalities in land ownership, access to credit, and institutional support, leaving many women with what the IPCC describes as “the least formal protection” during environmental crises.

Regional evidence reveals notable similarities despite differences in local contexts. In Sub-Saharan Africa, women’s adaptation efforts are often constrained by limited control over land, restricted access to credit, and deeply entrenched gender norms (Olumba, 2025). Similarly, research from South Asia highlights how discriminatory socio-cultural norms continue to restrict women’s adaptive capacity, particularly in relation to education, digital literacy, and healthcare access (Islam et al., 2024). While the specific barriers vary, both regions demonstrate how structural inequalities reduce women’s ability to respond effectively to climate-related risks. The consequences become particularly evident during extreme weather events. Flooding in Bangladesh can disrupt maternal healthcare services, while heatwaves in India have been linked to increased maternal mortality risks, underscoring the urgent need for gender-responsive climate adaptation within public health systems (Nihal et al., 2026).

The experiences of indigenous women in Latin America further demonstrate the interconnected nature of gender, poverty, and environmental vulnerability. Schling and Pazos (2024) report that indigenous rural women, despite playing a central role in ensuring household food security, own less than 5% of available land resources. This disparity not only limits economic opportunities but also reduces adaptive capacity in regions increasingly affected by climate variability. When compared with findings from Africa and Asia, the evidence suggests that although the forms of marginalisation differ, unequal access to land and productive resources remains a common driver of vulnerability. Such evidence reinforces the argument that climate vulnerability is fundamentally shaped by unequal social relations rather than environmental factors alone.

The findings reveal that climate change functions as a threat multiplier, intensifying pre-existing social and gender inequalities. Women's heightened vulnerability is not an inevitable outcome of climate change itself but rather the result of unequal access to resources, decision-making power, and institutional support. At the same time, the evidence demonstrates that women are not merely passive victims of environmental change. Their experiences, adaptive strategies, and local knowledge position them as critical actors in building climate resilience. Therefore, effective climate adaptation requires an integrated approach that combines gender-responsive policies, intersectional analysis, and inclusive governance structures. By drawing together insights from Intersectionality Theory and Feminist Political Ecology, this analysis highlights the need for transformative adaptation strategies that address structural inequalities while simultaneously strengthening the adaptive capacities of those most affected by climate change.

4.2 Discussion of Findings

The analysis demonstrates that climate vulnerability is best understood as a socially produced condition rather than a direct consequence of environmental hazards alone. Across Africa, Asia, and Latin America, the evidence reveals a consistent pattern in which climate-related risks are amplified by unequal access to economic resources, political representation, education, land ownership, and social protection mechanisms. This is in line with Anjum & Aziz (2025). While climate hazards such as floods, droughts, and heatwaves affect entire communities, their impacts are unevenly distributed because individuals and groups possess different capacities to anticipate, withstand, and recover from environmental shocks. This finding suggests that climate change functions primarily as a threat multiplier, deepening existing inequalities rather than creating entirely new forms of vulnerability, this agreed with the work of Okorie et al., (2024) on exacerbated effects of climate change-induced loss and damage & adaptation capacity.

A significant contribution of this analysis is the identification of the mutually reinforcing relationship between gender and other dimensions of social exclusion. The reviewed evidence indicates that gender alone does not determine vulnerability. Instead, vulnerability emerges from the intersection of gender with poverty, ethnicity, age, geographic location, and institutional marginalization. Consequently, women do not constitute a homogeneous category (Zhang & Petrova, 2025). Indigenous women in Latin America, rural women in Sub-Saharan Africa, and women living in climate-vulnerable regions of South Asia experience different forms and intensities of climate risk. This finding reinforces the central argument of Intersectionality Theory that climate vulnerability is shaped by overlapping systems of inequality that operate simultaneously rather than independently.

The analysis also reveals a critical paradox within contemporary climate governance. Although women are frequently identified as among the populations most vulnerable to climate change, they simultaneously possess significant adaptive knowledge and resilience capacities. Across the reviewed literature, women emerge as key actors in agricultural adaptation, natural resource management, informal social protection systems, and community-based resilience initiatives favour Sani et al. (2025) analysis on role of women in advancing climate-smart agriculture in developing countries. Yet these contributions remain insufficiently recognized within formal adaptation planning and policy frameworks. This disconnect suggests that climate governance often benefits from women's labour, knowledge, and community networks while failing to provide them with corresponding access to resources, decision-making authority, and institutional support.

Furthermore, the findings challenge the assumption that climate adaptation automatically promotes social justice. Adaptation interventions that fail to address existing power relations may inadvertently reproduce or even deepen inequalities by concentrating resources among already advantaged groups. This assertion reveled the study of Yang et al. (2026) Effective adaptation therefore requires more than technical solutions or infrastructure investments. It demands transformative approaches that confront structural inequalities, expand access to productive resources, strengthen inclusive governance mechanisms, and recognize local knowledge systems as legitimate sources of climate expertise.

Viewed collectively through the combined lenses of Intersectionality Theory and Feminist Political Ecology, the findings suggest that climate resilience is not simply a matter of environmental management but also a question of social transformation. Policies that address gender inequality, resource exclusion, and unequal participation are likely to produce more sustainable adaptation outcomes than approaches focused solely on technological or economic interventions (Guodaar, 2025). Consequently, climate justice and climate resilience should be understood as interconnected objectives, both requiring the reduction of structural inequalities that shape vulnerability and adaptive capacity.

4.3 Toward Gender-Responsive Climate Policy

4.3.1 Global Frameworks and National Adaptation Plans

Recognizing these dynamics, international and national policies are gradually integrating gender. The UN Framework Convention on Climate Change (UNFCCC) has established a Gender Action Plan: COP25 (2019) adopted a 5-year enhanced gender work programme (UNFCCC, 2019), and COP30 (2025) agreed on a new 9-year “Belém GAP” to advance gender-responsive climate action. These global frameworks affirm that “gender equality is essential for effective climate action” and set priority areas for women’s participation (UN Women, 2025). Similarly, Sustainable Development Goal 5 (Gender Equality) explicitly links to SDG13 (Climate Action) and SDG10 (Reduced Inequalities), calling for policies that address multiple dimensions of marginalization.

On the ground, progress is uneven but growing. National Adaptation Plans (NAPs) have become a key entry point. Notably, 97% of developing countries’ NAP documents now include some gender considerations, up from almost none in 2018, showing strong mainstreaming momentum (Dazé, 2025). Roughly half of NAPs explicitly recognize that women are “agents of change” in

adaptation, acknowledging that including women's experiences strengthens institutional outcomes. These shifts indicate rising awareness: when women participate in planning, adaptation measures are more widely adopted (Leppert et al., 2026). For example, East African NAPs report that engaging women in agroforestry or irrigation projects led to higher crop yields and quicker community acceptance.

4.3.2 Addressing the Policy-Resource Gap

Despite these advances, the IPCC AR6 notes a critical policy gap: "very few examples of successful integration of gender and other social inequities in climate policies" exist, even though this integration is crucial for justice. Climate plans often mention women, but few allocate dedicated financial resources or targeted monitoring mechanisms (Prakash et al., 2022). To address this, experts call for gender-transformative approaches that go beyond merely ticking boxes.

Key structural recommendations include:

1. **Promoting Women's Land Tenure and Access to Credit**

   Women should have equal rights to own and inherit land since they are key actors in agriculture. Secure land ownership enables them to invest in long-term climate-smart practices and improve productivity. Access to affordable credit and insurance is also essential to support adaptation efforts. These measures help reduce structural inequalities and strengthen rural resilience.

2. **Investing in Women's Education and Digital Skills**

   Education empowers women to understand and respond better to climate risks. Training in agriculture, climate literacy, and entrepreneurship improves their adaptive capacity. Digital tools like mobile apps and weather updates help them make informed decisions. Closing the digital gap increases participation in innovation and resilience-building.

3. **Challenging Discriminatory Social Norms**

   Deep-rooted cultural norms often limit women's participation in decision-making and access to resources. Community dialogues involving leaders, men, and women can help change these perceptions. Awareness programs should highlight the value of gender equality in development. This helps build more inclusive and supportive communities for adaptation.

4. **Strengthening Gender-Responsive Governance**

   Institutions should actively include women in climate decision-making processes. Gender-responsive budgeting ensures resources address women's specific needs. Quotas can improve women's representation in leadership roles. Strong accountability systems make climate policies fairer and more effective.

Policy makers are also encouraged to integrate gender across intersecting sectors. For instance, adaptation in agriculture, water, and health should all consider gendered effects. Gender-responsive health systems providing reproductive and maternal care that remains accessible during heatwaves and floods directly reduce women's climate vulnerability. Likewise, social protection programs (like cash transfers or insurance) can be designed to target women and include childcare provisions, as experiments in some African countries have shown positive impacts. At the community level, building women's leadership in water user associations or disaster committees ensures their knowledge guides resource management. These approaches align with climate justice: addressing women's rights, voice, and needs is not only ethical but also makes adaptation more effective and sustainable.

5.0 Conclusion

Climate change does not affect everyone in the same way; instead, it deepens existing social and economic inequalities in society. An intersectional lens makes it clear that vulnerability and resilience are shaped not only by environmental exposure, but also by power relations linked to gender, class, and social status. In many parts of the Global South, women often experience higher levels of risk because of limited access to land, credit, education, and decision-making spaces. These constraints reduce their adaptive capacity, even though they are among the most active actors in managing natural resources and household resilience. At the same time, women are not merely passive victims of climate impacts. They play a central role in developing everyday coping strategies through local knowledge, social networks, and community solidarity. These often-unrecognized contributions form an essential foundation for household and community survival in the face of climate stress. Strengthening these capacities requires more than technical interventions; it demands structural change. Therefore, effective climate policy must be gender-responsive and transformative. This includes removing institutional barriers such as unequal land rights, limited financial inclusion, and restricted access to climate information, while also promoting women's leadership in adaptation planning and governance. When gender and other social dimensions are properly integrated into policy design and implementation, adaptation strategies become more inclusive, practical, and effective for entire communities, not just women. Applying intersectionality and feminist political ecology to climate action ensures that adaptation efforts do not reproduce existing inequalities. Instead, they create pathways for social justice, empowerment, and shared resilience. Ultimately, this approach strengthens not only the position of women, but also the long-term sustainability, equity, and effectiveness of global climate solutions.

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